AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.(original) A method for identifying a person with Parkinson's disease and/or a person at risk for developing Parkinson's disease, comprising screening nucleic acids from said person for a mutation in an ADH1C gene which encodes a protein chain, said mutation causing a truncation of the expressed protein chain.

2.(original) The method according to claim 1 wherein the ADH1C gene is selected from the group consisting of a gene having a cDNA sequence of SEQ ID NO. 1 and other ADH1C genes having a thymidine at or corresponding to position 303 in SEQ ID NO. 1.

3.(currently amended) The method according to claim 1 [[or 2]], wherein the screening comprises at least one procedure selected from the group consisting of DGGE, SSCP, HA, temperature gradient gel electrophoresis TGGE, cleavage-fragment-length polymorphism analysis CFLP, dHPLC, CCM, CDI, ECM, UNG-mediated T Scan, direct sequencing, DNA chip resequencing, Pyrosequencing™, allele-specific primer extension (GBA; TDI), oligonucleotide ligation assay (OLA; DOL), Taqman-ASO, RFLP, mass spectrometry, the Invader™ assay, BeadArray™ technology, or any equivalent procedure which detects the mutation.

4.(currently amended) The method according to claim [[1 or 2]], wherein the screening comprises at least one procedure selected from the group consisting of direct sequencing, Pyrosequencing™, Taqman-ASO to specifically detect the mutation.

5.(currently amended) The method according to claim 1 [[or 2]], wherein the screening comprises restriction enzymes specifically recognizing a nucleotide sequence of the mutation or surrounding the mutation to be detected.

6.(currently amended) The method according to claim 1 [[or 2]], wherein the screening comprises hybridising under stringent conditions an oligonucleotide to the ADH1C gene comprising the mutation.

7.(original) A diagnostic kit for performing a method of identifying a person with Parkinson's disease and/or a person at risk of developing Parkinson's disease, said person having a mutation in an ADH1C gene which encodes a protein chain, said mutation causing a truncation of the expressed protein chain.

8.(original) The diagnostic kit according to claim 7, wherein the ADH1C gene is selected from the group consisting of a gene of SEQ ID NO. 1 and other ADH1C genes having a thymidine at or corresponding to position 303 in SEQ ID NO. 1.

9.(original) The diagnostic kit according to claim 8, comprising in sealed container(s) one or more oligonucleotides hybridising under stringent conditions to the ADH1C gene.

10.(original) The diagnostic kit according to claim 8 comprising in sealed container(s) one or more restriction enzymes specifically recognizing a nucleotide sequence of the mutation or surrounding the mutation to be detected on the ADH1C gene.

11.(original) A method for prevention and/or treatment of Parkinson's disease comprising administration of a functional ADH1C protein in a therapeutically effective dose.

12.(original) A pharmaceutical composition for prevention and/or treatment of Parkinson's disease comprising a functional ADH1C protein in a therapeutically acceptable carrier.

13.(original) A transgenic, non-human animal comprising a human ADH1C gene selected from the group consisting of a gene of SEQ ID NO. 2 and equivalent functional homologues thereof, which animal can be used as a model in the development of prevention/treatment strategies for Parkinson's disease.

14.(original) The transgenic non-human animal according to claim 13 wherein the ADH1C gene has a thymidine at or corresponding to position 303 in SEQ ID NO. 1.

15.(original) The transgenic non-human animal, wherein an ADH1 gene encoding a protein chain comprises a mutation causing a truncation of the expressed protein chain.

16.(currently amended) The transgenic non-human animal according to ~~any of claims 13-15~~ claim 13, which is a rodent.

17.(original) A cell line comprising an ADH1C gene corresponding to SEQ ID NO. 2, an allelic variant, a minigene, or an equivalent functional homologue thereof, to over-express ADH1C, an isoform of ADH1C or functional homologues thereof or at least a portion thereof.

18.(original) A cell line comprising the ADH1C gene corresponding to SEQ ID NO. 1 or other ADH1C genes having a thymidine at or corresponding to position 303 in SEQ ID NO. 1, an allelic variant, mini-gene, an equivalent functional homologue thereof, to express a non-functional ADH1C or at least a portion thereof.

19.(original) A pharmaceutical composition for prevention and/or treatment of Parkinson's disease comprising cells according to claim 17 in a therapeutically acceptable carrier.

20.(original) A method for prevention and/or treatment of Parkinson's disease comprising administration of cells according to claim 17 in a therapeutically effective dose.

21.(currently amended) A method for screening for pharmaceutical compounds, pharmaceutical compositions or nucleic acids that interfere with ADH1C expression or ADH1C-induced pathology, said method comprising a cell line according to claim 17 [[or 18]].

22.(original) A recombinant vector comprising the ADH1C gene corresponding to SEQ ID NO. 2, an allelic variant, a minigene or an equivalent functional homologue thereof.

23.(original) A recombinant vector comprising a cDNA of the ADH1C gene corresponding to SEQ ID NO. 2 or an equivalent functional homologue thereof, a replication DNA fragment that provides for replication of said cDNA, a promoter DNA fragment that provides for transcription of the cDNA in a eukaryotic cell, and a translation DNA fragment that provides for translation in a eukaryotic cell of mRNA from said cDNA, said cDNA and DNA fragments being operatively linked so as to provide for expression of said cDNA when said vector is introduced into a eukaryotic cell.

24.(currently amended) A cell comprising a recombinant vector according to claim 22 [[or 23]].

25.(currently amended) Vector according to claim 22 [[or 23]] comprised in a viral vector system wherein the viral vector system mediates gene transfer in a non-human animal.

26.(currently amended) Vector according to claim 22 [[or 23]] comprised in a non-viral vector system wherein the non-viral vector system mediates gene transfer in a non-human animal.

27.(original) Vector according to claim 23 comprised in a viral vector system wherein the viral vector system mediates gene transfer in a human.

28.(currently amended) Vector according to claim 22 [[or 23]] comprised in a non-viral vector system wherein the non-viral vector system mediates gene transfer in a human.

29.(currently amended) A recombinant cell comprising a vector according to claim 22 [[or 23]], wherein the recombinant cell mediates gene transfer in a non-human animal.

30.(currently amended) Recombinant cell comprising a vector according to claim 22 [[or 23]], wherein the recombinant cell mediates gene transfer in a human.

31.(currently amended) A method for prevention and/or treatment of Parkinson's disease comprising delivery of a vector according to claim 27 [[or 28]] to the patient.

32.(original) A method for prevention and/or treatment of Parkinson's disease comprising delivery of a recombinant cell according to claim 30.